

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OKLAHOMA**

State of Oklahoma, ex rel. W.W.A. Drew
Edmondson, in his capacity as Attorney
General of the State of Oklahoma and
Oklahoma Secretary of the Environment C.
Miles Tolbert, in his capacity as the Trustee
for Natural Resources for the State of
Oklahoma,

Plaintiffs,

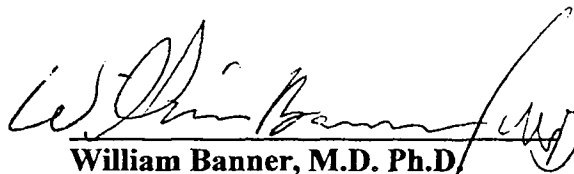
v.

Tyson Foods, Inc., Tyson Poultry, Inc., Tyson
Chicken, Inc., Cobb-Vantress, Inc., Aviagen,
Inc., Cal-Maine Foods, Inc., Cal-Maine
Farms, Inc., Cargill, Inc., Cargill Turkey
Production, LLC, George's, Inc., George's
Farms, Inc., Peterson Farms, Inc., Simmons
Foods, Inc., and Willow Brook Foods, Inc.,

Defendants.

05-CV-0329 GKF-SAJ

**Expert Report of
William Banner M.D., Ph.D.**


William Banner, M.D. Ph.D.

Dated: 10/5/08

EXHIBIT

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I. Introduction

A. Overview of Qualifications

I hold a B.S. in Physical Science from Memphis State University, an M.D. from the University of Tennessee College of Medicine, and a Ph.D. in Pharmacology from the University of Arizona College of Medicine.

I am a Fellow of the American Academy of Pediatrics, the Society of Critical Care Medicine, the American College of Medical Toxicology (Chairman 1992-1994), and the American Academy of Clinical Toxicology (President 1994-1996). I served on the Editorial Board for *Clinical Toxicology* from 1988-1998, and I was Associate Editor for this publication from 1990-1996. I am also on the Editorial Board for *Medical Toxicology*. I have authored multiple articles in the field of toxicology. In 2002, I was appointed by President Bush to the Advisory Committee on Childhood Lead Poisoning Prevention. A complete copy of my curriculum vitae is attached.

I am currently the Co-Director of the Pediatric Intensive Care Unit, Children's Hospital at Saint Francis. As a board certified toxicologist and Co-Director of the region's preeminent critical care facility for pediatric intensive care, I consider myself an expert in the fields of toxicology and critical care medicine.

B. Purpose of My Report

I have been retained by the Defendants in this action to offer my clinical opinion as to whether there is a risk of harm to human health from exposure to the waters of the Illinois River Watershed. I have also been asked to review and respond to the claims made by the state's consultants, specifically Drs. Lawrence and Teaf, that the waters of the Illinois River Watershed pose a risk to human health. In addition to my reliance materials listed below and my day-to-day clinical experience, I have reviewed the reports of Drs. Lawrence, Teaf and Harwood. I have received and reviewed

materials produced by Drs. Lawrence, Teaf and Harwood. Those materials are listed below.

II. Statement of Opinions and the Basis and Reasons for Them

- A. The statistical data of Reportable Diseases published by the Arkansas and Oklahoma State Departments of Health is meaningless in rendering any opinion as to the cause of a hazard, impairment or risk to human health.

The underlying causes of these reportable diseases are not generally reported in the data. Typically, enteric diseases are due to foodborne pathogens or direct contact with an animal, and they are not waterborne illnesses.

If there is an outbreak of one of these reportable diseases, and information associating the outbreak with a specific location or source is available, that information may be included in the publications of the State Departments of Health. For example, in 2007, the Oklahoma State Department of Health reported two outbreaks of cryptosporidiosis in counties outside of the Illinois River Watershed.¹ Both of these outbreaks were associated with pools. There have been no outbreaks associated with exposure to any surface or ground waters in the Illinois River Watershed.

There is no geographic clustering of the diseases reported in these databases within the counties in the Illinois River Watershed or surrounding counties. It is unreasonable to state there is a risk to human health from exposure to the waters of the Illinois River Watershed based on the Arkansas and Oklahoma State Department of Health's statistical data.

¹ 2007 Annual Summary of Infectious Diseases, Oklahoma State Department of Health, page 27.

- B. The presence of indicator organisms does not mean that bacteria, viruses or protozoa harmful to human health are present. The indicator organisms themselves are not generally harmful to humans.

I agree with the statements in Dr. Herbert DuPont's report regarding the nature of indicator organisms. Clinically, I generally do not examine patients for indicator organisms as most humans carry indicator organisms in their bodies.

- C. If there were harmful levels of human pathogens in the surface or ground waters of the Illinois River Watershed, I would know about it due to the clinical correlation of patients who would be suffering adverse effects and the presentation of those patients at Saint Francis Hospital.

Children under the age of ten years old are more susceptible to the adverse effects of enteric disease than are adults. As the preeminent pediatric facility in this region of the country, we routinely receive transfers of cases of children suffering harmful effects from pathogenic bacteria, protozoa, amoebas and other causative agents. Saint Francis Hospital would be the facility of choice to transfer a pediatric patient from the counties in and surrounding the Illinois River Watershed who were suffering the adverse effects of enteric disease. I have never seen, consulted on, or even heard of a single clinical case of enteric disease resulting from contact with the waters of the Illinois River Watershed.

One example of my involvement in responding to local outbreaks of the types of diseases discussed by the state's consultants is the recent Locust Grove *E. coli* 0111 outbreak.

Given the number of people who recreate annually and/or live in the Illinois River Watershed, I would expect a causal connection to the waters of the Illinois River Watershed to have been established if one existed. Identification of the

causative agent would have already occurred due to multiple patients relating the same history of contact with waters in the Illinois River Watershed. No such identification of any medical cause of injury has occurred.

- D. An increase in skin and soft-tissue infections is not unique to the counties in the Illinois River Watershed. The most common identifiable cause of skin and soft tissue infections among patients presenting to emergency departments is Methicillin-Resistant *Staphylococcus Aureus* ("MRSA"). The number of MRSA infections across the country has increased dramatically in recent years.² As a result, the way we treat wounds has changed. Nothing in the waters of the Illinois River Watershed has caused this shift in the way we treat wounds. This is a nationwide issue that is not unique to the counties of the Illinois River Watershed.
- E. To a reasonable degree of medical certainty, there is no human health risk resulting from exposure to the waters of the Illinois River Watershed, or for that matter, from contact with the waters in the Illinois River Watershed generally. I hereby adopt as part of this report my previous testimony and Affidavit in this case.

III. Considered Materials

- Statistical Data regarding Reportable Disease published by the Arkansas and Oklahoma State Departments of Health
- Health Advisories Published by the Arkansas and Oklahoma State Departments of Health
- Reporting from Oklahoma State Department of Health concerning E.Coli 0111 Outbreak in Locust Grove, Oklahoma

² Journal of the American Medical Association, Invasive Methicillin-Resistant *Staphylococcus aureus* Infections in the United States, October 17, 2007 – Volume 298, No. 15; Center for Disease Control and Prevention (CDC) Fact Sheet, Invasive MRSA, October 17, 2007, http://www.cdc.gov/ncidod/dhqp/ar_mrsa_invasive_FS.html

- Fact Sheets, Reports and Data from CDC (www.cdc.gov), Arkansas State Department of Health (www.healthyarkansas.com) and Oklahoma State Department of Health (www.ok.gov/health/) concerning Methicillin-Resistant Staphylococcus aureus
- Examples of State's sampling data for indicator bacteria (STOK0054460-STOK0054462, STOK0054798-STOK0054806, STOK0054807-STOK0054815, STOK0054876-STOK0054884, STOK0054885-STOK0054893, STOK0055326-STOK0055329 and STOK0055330-STOK0055332).
- Materials produced by Valerie Harwood on 05/15/2008
- Materials produce by Robert Lawrence on 05/15/2008
- Materials produced by Christopher Teaf on 05/15/2008 contained in folders "Banner Info" and "Health Outcome Data"

IV. Qualifications including List of Publications Authored in Prior 10 Years

Appendix A

V. Prior Testimony During Previous Four Years

Appendix B

VI. Statement of Compensation

Appendix C